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1761. 6. 20. 1949

File: Public Hearing  
Statistical

MEMORANDUM

To: Mr. John Partin  
From: Mr. Raye C. King  
File: PETROLEUM INDUSTRIES' WASTE  
Date: March 2, 1949

In accordance with your instructions as of February 15, 1949, to investigate the disposal of acid sludge from oil refinery activities, I can report the following facts:

The name of the firm who is conducting this business of dumping acid sludge at sea is the California Salvage Company. This company is also tied up to a subsidiary company, named the California Ship Service Company. All sea-going equipment is kept at Berth 192, Wilmington. Their main office occupies practically the whole of the 700 block on the west side of Pacific Avenue, San Pedro. These companies are owned and operated by Mr. W. H. Hutchinson, who can be reached through the telephone - TR. 4-2773.

Answering the question as to how much material is being disposed of in this manner - there are: 4 1/2 barge loads per week averaging 1600 to 1700 barrels per barge load of acid sludge, and 500 to 600 barrels per week of spent caustic, with an average pH of 9 disposed of at sea. The distance and approximate location where the dumping is being done is as follows:

Acid sludge is discharged at the U.S. Naval Explosive dumping area, west of Catalina Island, 50 miles from San Pedro, with a measured depth of 1100 fathoms.

Spent caustic is disposed of midway between Catalina Island and the Mainland.

The acid sludge is discharged through four 4" openings in the bottom of the barge and is pumped under-water while the barge is in motion. The length of time to discharge averages about 1 1/2 hours, during which time the barge scribes a complete circle. Spent caustic is disposed of by similar methods. As the acid sludge contacts salt water, it coagulates into a solid and sinks with no flotation. Spent caustic is of identical density as the sea water and there also is no flotation.

Specifications of the Fish and Game Commission for dumping at sea are:

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LOS ANGELES COUNTY ENGINEER  
ROOM 622, 103 W. 2ND STREET  
LOS ANGELES 12, CALIFORNIA

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1. That a sample of each load is to be analyzed by the Charles Mountain Chemical Laboratories, with the proviso that no load is to be dumped if there is any flotation.

2. All tugs and barges connected with this operation are to be painted a distinctive color for identification purposes (red).

The location of the receiving points where the barges are being loaded is Berth 195, Wilmington. Transfer is made from California Salvage Company trucks into the barges with air-tight hose connections to keep the fumes from permeating the air. These precautions also prevent spillage. Barge departures are dependent upon the time barges are loaded to at least near capacity. Charges are made according to truck haul and the schedule calls for .93 per barrel for the Texaco Company, which is the shortest haul, to \$1.01 per barrel for the Standard Oil Company, El Segundo Plant, which theoretically, is the longest haul.

The history of this disposal at sea for acid sludge started when Mr. Paul Ward, of the State Health Department, ordered the refineries to desist from discharging acid sludge onto or into the ground, and Dr. McCabe, of the Air Pollution Control District ordered the refineries to desist from burning the acid sludge.

Mr. Hutchinson was approached by a committee made up of men from the following refineries:

Texaco Oil Company  
Associated Oil Company  
Shell Oil Company  
Richfield Oil Company  
General Petroleum Company  
Union Oil Company  
Standard Oil Company

Mr. Hutchinson agreed to acquire the necessary equipment and to post a \$5,000 Faithful Performance Bond with the Fish and Game Commission in Sacramento. This plan also had the approval of Mr. H. G. Walters, of the U. S. Engineers, Mr. Walters being the engineer in charge of harbors in this district. The plan was put into effect in November, 1947. Since the plan was put into effect, only the Texaco Company, Union Oil Company, and the General Petroleum Company have consistently used this method of disposal.

In January, 1949, the Richfield Oil Company and the Associated Oil Company notified Mr. Hutchinson that due to the fact that they were now purchasing their lube stock instead of processing it, that they no longer have acid sludge to dispose of; this in spite of the fact that they had not been taking full advantage of this method of disposal. The Texaco Company, which never did process lube stock, has for over 2 years disposed of approximately 2500 barrels of acid sludge per month. So it seems reasonable that the other companies are finding other cheaper methods of disposing of their acid sludge waste.

In February, 1949, the Texaco Company proposed that Mr. Hutchinson also dispose of spent caustic waste by the same method as acid sludge disposal. Upon approval of Mr. Towers, of the Fish and Game Commission, and Mr. Walters, of the U. S. Engineers, Mr. Hutchinson agreed and is now handling this waste under identical specifications as acid sludge.

Just previous to the end of 1948, the Dow Chemical Company approached Mr. Hutchinson about disposing of a liquid waste for them at sea. The quantity was a guaranteed 3,000 barrels per month. Mr. Hutchinson sent a sample to the Charles Mountain Chemical Laboratory for analysis, and they reported a flotation of 1/3 the volume, and that this 1/3 flotation was inflammable. Under Mr. Hutchinson's bond specifications, he had to refuse to handle the effluent. Mr. Hutchinson does not know by what method the Dow Chemical Company is disposing of this waste.

Mr. Hutchinson also informed me that he is disposing of an acid waste for the Stauffer Chemical Company, the quantity being in excess of 400 barrels per week.

The names of the men Mr. Hutchinson has done business with and the companies they represent in connection with acid waste disposal are:

Mr. Connors, of the Texaco Oil Company  
Mr. Palmer, of the Union Oil Company  
Mr. McCabe, of the Richfield Oil Company  
Mr. Stark, of the Associated Oil Company  
Mr. Powell, of the Standard Oil Company  
Mr. Castagnards, of the Shell Oil Company  
Mr. Allan, of the Stauffer Chemical Company

Mr. Hutchinson gave me to understand that he wants to cooperate with us in every way, and if we desire, he will give us specific information, given the time to compile it, but he would like the information treated as confidential. I informed him we would comply with his wishes in this matter.

From what I have learned, there are many questions to be answered, such as:

1. Where is the acid sludge originating in the Shell Oil Company, Associated Oil Company, Standard Oil Company and Richfield Oil Company, being disposed of?

2. What are the characteristics of the Dow Chemical Company's waste and where is it now being disposed of?

3. If it is necessary for the Texaco Oil Company to dispose of spent caustics at sea, why is it not necessary for other refineries?

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4. What other companies have similar wastes and where are they being disposed of?

5. When these wastes are accumulated in such large quantities as shown herein, is it not possible to collectively and profitably process it and recover valuable by-products?

The oil companies were forced to adopt ocean disposal for their acid sludge against their will, by the State Health Department and the State Fish and Game Commission, but they called the solution unreasonable and entirely too expensive. Due to this fact, Mr. Hutchinson believes that some of the companies are cheating.

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MEDICAL: SEE CURRENT  
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